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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,466	10/22/2002	Cameron Brackett	124854	5645
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CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER PAN, JOSEPH T	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 11/20/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/065,466

Applicant(s)

BRACKETT ET AL.

Examiner

Joseph Pan

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Applicant's response filed on September 10, 2007 has been carefully considered. Claims 1-25 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16-18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia et al. (U.S. Patent No.: 6,397,224 B1) in view of Roelse (U.S. Pub. No.: 2002/0101986 A1).

#### Referring to claim 16:

- i. Zubeldia teaches:  
A system for creating anonymity in collecting patient data, the system comprising:  
a network (see figure 1, element 30 of Zubeldia); and

a host system in communication with said network (see figure 1, element 12 of Zubeldia), said host system including software to implement the method comprising:

receiving a medical report for a patient including patient identification data (see figure 2, element 52 'data record' received from the input database, of Zubeldia);

searching a patient record corresponding to said patient for an encrypted anonymous patient identifier wherein said patient record includes one or more of the patient identification data, said searching returns said encrypted anonymous patient identifier in response to locating said encrypted anonymous patient identifier and said searching returns a null value in response to not locating said encrypted anonymous patient identifier (see figure 2, element 68 'anonymization code database'; column 3, lines 22-28; and column 5, lines 65-67 of Zubeldia);

creating and encrypting an anonymous patient identifier corresponding to said patient and storing the encrypted anonymous patient identifier in the patient record if said searching returns said null value (see figure 2, element 74 'anonymization code generation module'; and column 2, line 65, through column 3, line 3, of Zubeldia);

adding said anonymous patient identifier to said medical report (see figure 2, element 80 'anonymization code insertion module'; and column 3, lines 22-28 of Zubeldia);

removing said patient identification data from said medical report (see figure 2, element 78 'identifying element removal module'; and column 3, lines 22-28 of Zubeldia); and

transmitting said medical report to a data repository in response to said removing (see figure 2, element 82 'data record' transmitted to output database, of Zubeldia).

Zubeldia discloses the encrypting technique (see column 5, lines 65-67 'In alternative embodiments, different encoding techniques may be used, such as

encrypting the first subset 60A using symmetric or public key cryptographic algorithms.', of Zubeldia, emphasis added). However, Zubeldia does not specifically mention the decryption.

ii. Roelse teaches a linear transformation for symmetric-key ciphers, wherein Roelse discloses the encryption and the decryption (see page 1, paragraph [0002], lines 3-5 of Roelse).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Roelse into the system of Zubeldia to use decryption.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Roelse into the system of Zubeldia to use decryption, because Zubeldia teaches encrypting the patient identifying element, And Roelse teaches encrypting and decrypting contents. Therefore, Roelse's teaching could enhance Zubeldia's system.

Referring to claim 17:

Zubeldia and Roelse teach the claimed subject matter: a system for creating anonymity in collecting patient data (see claim 16 above). Zubeldia further disclose the Internet (see figure 1, element 40 of Zubeldia).

Referring to claim 18:

Zubeldia and Roelse teach the claimed subject matter: a system for creating anonymity in collecting patient data (see claim 16 above). Zubeldia further disclose the intranet (see figure 1, element 14 of Zubeldia).

Referring to claim 20:

i. Zubeldia teaches:

A computer program product for creating anonymity in collecting patient data, the product comprising:

receiving a medical report for a patient including patient identification data (see figure 2, element 52 'data record' received from input database, of Zubeldia);

searching a patient record for an encrypted anonymous patient identifier corresponding to said patient wherein said patient record includes one or more of the patient identification data, said searching returns said encrypted anonymous patient identifier in response to locating said encrypted anonymous patient identifier and said searching returns a null value in response to not locating said encrypted anonymous patient identifier (see figure 2, element 68 'anonymization code database'; and column 3, lines 22-28, of Zubeldia);

creating and encrypting an anonymous patient identifier corresponding to said patient and storing said encrypted anonymous patient identifier in the patient record if said searching returns said null value (see figure 2, element 74 'anonymization code generation module'; column 2, line 65, through column 3, line 3; column 2, lines 52-59; column 4, lines 36-39; and column 5, lines 65-67 of Zubeldia);

storing said anonymous patient identifier in the patient record if said searching returns said null value (see column 6, lines 54-56 of Zubeldia);

adding said anonymous patient identifier to said medical report (see figure 2, element 80 'anonymization code insertion module'; and column 3, lines 22-28 of Zubeldia);

removing said patient identification data from said medical report (see figure 2, element 78 'identifying element removal module'; and column 3, lines 22-28 of Zubeldia); and

transmitting said medical report to a data repository in response to said removing (see figure 2, element 82 'data record' transmitted to output database, of Zubeldia).

Zubeldia discloses the encrypting technique (see column 5, lines 65-67 'In alternative embodiments, different encoding techniques may be used, such as encrypting the first subset 60A using symmetric or public key cryptographic algorithms.', of Zubeldia, emphasis added). However, Zubeldia does not specifically mention the decryption.

ii. Roelse teaches a linear transformation for symmetric-key ciphers, wherein Roelse discloses the encryption and the decryption (see page 1, paragraph [0002], lines 3-5 of Roelse).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Roelse into the system of Zubeldia to use decryption.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Roelse into the system of Zubeldia to use decryption, because Zubeldia teaches encrypting the patient identifying element, And Roelse teaches encrypting and decrypting contents. Therefore, Roelse's teaching could enhance Zubeldia's system.

4. Claims 1, 3, 9-11, 15, 19, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia et al. (U.S. Patent No.: 6,397,224 B1) in view of Brandin et al. (U.S. Patent No.: 6,157,617), hereinafter "Brandin".

Referring to claim 1:

i. Zubeldia teaches:

A method for creating anonymity in collecting patient data, the method comprising:

receiving a medical report for a patient including patient identification data (see figure 2, element 52 'data record' received from input database, of Zubeldia);

searching a patient record for an anonymous patient identifier corresponding to said patient wherein said patient record includes one or more of the patient identification data, said searching returns said anonymous patient identifier in response to locating said anonymous patient identifier and said searching returns a null

value in response to not locating said anonymous patient identifier (see figure 2, element 68 'anonymization code database'; and column 3, lines 22-28, of Zubeldia);

creating said anonymous patient identifier corresponding to said patient, wherein said anonymous patient identifier includes a transformation of a data/time component and an anonymity supplement component (see figure 2, element 74 'anonymization code generation module'; column 2, line 65, through column 3, line 3; column 2, lines 52-59; and column 4, lines 36-39 of Zubeldia);

storing the anonymous patient identifier in the patient record if said searching returns said null value (see column 6, lines 54-56 of Zubeldia);

adding said anonymous patient identifier to said medical report (see figure 2, element 80 'anonymization code insertion module'; and column 3, lines 22-28 of Zubeldia);

removing said patient identification data from said medical report (see figure 2, element 78 'identifying element removal module'; and column 3, lines 22-28 of Zubeldia); and

transmitting said medical report to a data repository in response to said removing (see figure 2, element 82 'data record' transmitted to output database, of Zubeldia).

Zudeldia discloses the transformation of identifying elements. However, Zudeldia does not specifically mention the linear transformation. Neither does Zubeldia specifically mention the MAC (media access control).

ii. Brandin teaches a system for network packet accounting wherein Brandin disclose the linear transformation and the media access control address (see column 2, lines 35-36; and column 2, lines 62-64 of Brandin).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Brandin into the system of Zubeldia to include a linear transformation of a media access control address.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Brandin into the system of Zubeldia to include a linear



transformation of a media access control address, because it's well known in the art that the media access control address is uniquely assigned to a network device. Therefore, it can be utilized to form a unique identifier.

Referring to claim 3:

Zubeldia and Brandin teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 1 above). Zubeldia further discloses the date/time component (see column 2, lines 18-21; and column 4, lines 3-39 of Zubeldia).

Referring to claim 9:

Zubeldia and Brandin teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 1 above). Zubeldia further disclose said patient identification data includes one of name, medical record number and social security number (see column 1, lines 63-65; and column 2, lines 18-21 of Zubeldia).

Referring to claims 10-11:

Zubeldia and Brandin teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 1 above). Zubeldia further discloses the encryption (see column 5, lines 65-67 of Zubeldia).

Referring to claim 15:

i. Zubeldia teaches:

A method for creating anonymity in collecting patient data, the method comprising:

receiving a medical report for a patient including patient identification data (see figure 2, element 52 'data record' received from input database, of Zubeldia);

searching a patient record for an anonymous patient identifier corresponding to said patient wherein for an anonymous patient identifier wherein said patient record includes one or more of the patient identification data, said searching returns said anonymous patient identifier in response to locating said anonymous

patient identifier and said searching returns a null value in response to not locating said anonymous patient identifier (see figure 2, element 68 'anonymization code database'; and column 3, lines 22-28, of Zubeldia);

creating said anonymous patient identifier corresponding to said patient if said searching returns said null value (see figure 2, element 74 'anonymization code generation module'; and column 2, line 65, through column 3, line 3, of Zubeldia);

adding said anonymous patient identifier to said medical report (see figure 2, element 80 'anonymization code insertion module'; and column 3, lines 22-28 of Zubeldia);

removing said patient identification data from said medical report (see figure 2, element 78 'identifying element removal module'; and column 3, lines 22-28 of Zubeldia); and

transmitting said medical report to a data repository in response to said removing (see figure 2, element 82 'data record' transmitted to output database, of Zubeldia).

Zubeldia further discloses the anonymity supplement (see column 3, lines 2-3 of Zubeldia), the date/time (see column 2, lines 18-21; and column 4, lines 36-39 of Zubeldia), and the encryption (see column 5, lines 65-67 of Zubeldia).

However, Zubeldia does not specifically mention linear transformation of the media access control address.

ii. Brandin teaches a system for network packet accounting wherein Brandin disclose the linear transformation and the media access control address (see column 2, lines 35-36; and column 2, lines 62-64 of Brandin).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Brandin into the system of Zubeldia to include a linear transformation of a media access control address.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Brandin into the system of Zubeldia to include a linear transformation of a media access control address, because it's well known in the art that

the media access control address is uniquely assigned to a network device. Therefore, it can be utilized to form a unique identifier.

Referring to claims 19, 21:

i. Zubeldia teaches the claimed subject matter: a system for creating anonymity in collecting patient data (see claim 16 above). Zubeldia further discloses the anonymity supplement (see column 3, lines 2-3 of Zubeldia), the date/time (see column 2, lines 18-21; and column 4, lines 36-39 of Zubeldia), and the encryption (see column 5, lines 65-67 of Zubeldia).

However, Zubeldia does not specifically mention linear transformation of the media access control address.

ii. Brandin teaches a system for network packet accounting wherein Brandin disclose the linear transformation and the media access control address (see column 2, lines 35-36; and column 2, lines 62-64 of Brandin).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Brandin into the system of Zubeldia to include a linear transformation of a media access control address.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Brandin into the system of Zubeldia to include a linear transformation of a media access control address, because it's well known in the art that the media access control address is uniquely assigned to a network device. Therefore, it can be utilized to form a unique identifier.

Referring to claim 22:

i. Zubeldia teaches:

An anonymous patient identifier encoding format for creating anonymity in collecting patient data, the format comprising a unique patient identifier (see column 1, lines 63-65 of Zubeldia). Zubeldia further disclose the date/time (see column 2, lines 18-21; and column 4, lines 36-39 of Zubeldia), an additional component (see column 3, lines 2-3 of Zubeldia), and the encryption (see column 5, lines 65-67 of Zubeldia).

However, Zubeldia does not specifically mention the unique system identifier for creating the anonymous patient identifier.

ii. Brandin teaches a system for network packet accounting wherein Brandin disclose the media access control address [i.e., unique system identifier] (see column 2, lines 35-36; and column 2, lines 62-64 of Brandin).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Brandin into the system of Zubeldia to include the media access control address for creating anonymous patient identifier.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Brandin into the system of Zubeldia to include the media access control address for creating anonymous patient identifier, because it's well known in the art that the media access control address is uniquely assigned to a network device. Therefore, it can be utilized to form a unique identifier.

Referring to claim 23-25:

Zubeldia and Brandin teach the claimed subject matter: an anonymous patient identifier encoding format for creating anonymity in collecting patient data (see claim 22 above). Brandin further discloses the linear transformation (see column 2, lines 35-36 of Brandin).

5. Claims 2, 4-8, 12-14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zubeldia et al. (U.S. Patent No.: 6,397,224 B1) in view of Brandin et al. (U.S. Patent No.: 6,157,617), and further in view of Roelse (U.S. Pub. No. 2002/0101986 A1).

Referring to claim 2:

i. Zubeldia and Brandin teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 1 above). However, they do not specifically mention the random number.

ii. Roelse teaches a linear transformation for symmetric-key ciphers, wherein Roelse discloses random number (see page 2, paragraph [0015], line 10 of Roelse).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Roelse into the system of Zubeldia and Brandin to use random number.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Roelse into the system of Zubeldia and Brandin to use random number, because it's well known in the art that random number is unique, and Zubeldia teach using unique number (see column 3, lines 2-3 of Zubeldia).

Referring to claim 4:

Zubeldia, Brandin and Roelse teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 2 above). They further disclose the maximum and the minimum (see page 1, paragraph [0004], lines 7-13 of Roelse).

Referring to claims 5-8:

Zubeldia, Brandin and Roelse teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 2 above). They further disclose the linear transformation and the matrix (see page 1, paragraph [0006] of Roelse).

Referring to claim 12:

Zubeldia, Brandin and Roelse teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 2 above). They further disclose the concatenation (see page 2, paragraph [0019], line 13 of Roelse).

Referring to claims 13-14:

Zubeldia, and Brandin and Roelse teach the claimed subject matter: a method for creating anonymity in collecting patient data (see claim 2 above). They further discloses the matrix (see page 1, paragraph [0006] of Roelse).

### ***Response to Arguments***

6. Applicant's arguments, filed on September 10, 2007, with respect to that Subeldia does not disclose decryption, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Roelse.

Applicant argues:

"That is, Zubeldia fails to disclose or suggest receiving over the network a medical report for a patient including patient identification data and transmitting the medical report to a data repository over the network as recited in claim 16." (see page 2, 1<sup>st</sup> paragraph, Applicant's Arguments/Remarks).

Examiner maintains:

Zubeldia discloses the system consisting of a network interface (see e.g. figure 1, element 30 'network interface', element 40 'Internet', and element 38 'router', of Zubeldia).

Zubeldia further discloses "FIG. 1 is a schematic block diagram illustrating a computer system 10 in which a plurality of modules may be hosted on one or more computer workstations 12 connected via a network 14. The network 14 may comprise a wide area network (WAN) or local area network (LAN) and may also comprise an interconnected system of networks, one particular example of which is the Internet." (see column 4, lines 16-22 of Zubeldia).

Therefore, Zubeldia discloses receiving over the network a medical report for a patient including patient identification data and transmitting the medical report to a data repository over the network.

Applicant argues:

"Zubeldia fails to disclose or suggest searching a patient record corresponding to the patient for an anonymous patient identifier." (see page 2, 3<sup>rd</sup> paragraph, Applicant's Arguments/Remarks).

Examiner maintains:

Zubeldia discloses "The anonymization code lookup module 64 is depicted as including a database query module 70. In one embodiment, the database query module 70 queries the anonymization code database 68 to retrieve the anonymization code 66, if any, for each of the first and second encoded identity references 60A-B. Where, for example, the database 68 comprises a flat file or a table, the database query module 70 may simply perform a lookup operation within the flat file or the table." (see column 7, lines 8-16 of Zubeldia, emphasis added).

Therefore, Zubeldia discloses searching a patient record corresponding to the patient for an anonymous patient identifier.

Applicant argues:

"Zubeldia fails to disclose or suggest storing the anonymous patient identifier in the patient record where the patient record includes one or more of the patient identification data as set forth in claim 16." (see page 2, 3<sup>rd</sup> paragraph, Applicant's Arguments/Remarks).

Examiner maintains:

Zubeldia discloses storing the anonymous patient identifier in the patient record (see e.g. figure 2, element 80 'Anonymization code insertion module' of Zubeldia).

Zubeldia further discloses "In alternative embodiments, the system 50 may include one or more additional identity reference encoding modules 58 as needed.

Each additional encoding module 58 may be used to encode a different subset 62 of identifying elements 56 to produce an additional encoded identity reference 60. The use of additional encoded identity references 60 may increase, in certain embodiments, the accuracy of identifying all of the data records 52 pertaining to the same individual." (see column 6, lines 33041 of Zubeldia, emphasis added).

Therefore, Zubeldia discloses storing the anonymous patient identifier in the patient record where the patient record includes one or more of the patient identification data as set forth in claim 16.

### **Conclusion**

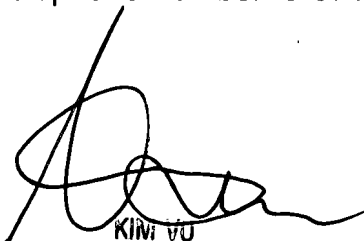
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan  
November 15, 2007

  
KIM VU  
PATENT EXAMINER  
FEDERAL BUREAU OF INVESTIGATION  
FBI/DOJ CENTER 2100